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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,179	08/31/2004	Norifumi Tokuda	257478US2PCT	8275

22850 7590 10/20/2006

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EXAMINER

KUNZER, BRIAN

ART UNIT	PAPER NUMBER
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2814

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/505,179	TOKUDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian Kunzer	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 21-30, 39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) 31-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-30, 39 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

DETAILED ACTION

*Election/Restriction*

1. The office action mailed January 13<sup>th</sup>, 2006 required an election drawn to the following patentably distinct species of the claimed invention:

- I. Claims 22-30, 39, and 40, Group I, drawn to a device with a groove in semiconductor configuration, classified in class 257, subclass 622.
- II. Claims 31-38, Group II, drawn to a semiconductor device with a mesa structure having multiple field effect configurations, classified in class 257, subclass 623.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 21 is the generic claim.

*Non-Compliant Amendment*

2. Accordingly, Applicant elected the invention of Group I with traverse in the reply filed February 13<sup>th</sup>, 2006.

3. Subsequently the **restriction is made FINAL** for the reasons stated in the office action mailed April 20<sup>th</sup>, 2006.

4. Newly amended claims 21 and 40 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: **the amendment made includes limitations of a trench, a gate insulating film, and a gate electrode, all of which are**

**limitations that are clearly drawn to claim Group II as they are limitations that are found in claim 31, but are not at all described in any of originally elected claims 21-30 and 40 (claim Group I).**

5. Since applicant has received an action on the merits for the originally presented invention (Group I), this invention has been constructively elected by original presentation for prosecution on the merits. See 37 CFR 1.142(b) and MPEP § 821.03.

6. **The amendment filed on July 20<sup>th</sup>, 2006 amending all claims drawn to the elected invention (Group I) and presenting only claims drawn to a non-elected invention (Group II) is non-responsive (MPEP § 821.03).** The remaining claims are not readable on the elected invention because they are clearly drawn to the invention of Group II as stated above.

Since the above-mentioned amendment appears to be a *bona fide* attempt to reply, applicant is given a **TIME PERIOD of ONE (1) MONTH or THIRTY (30) DAYS**, whichever is longer, from the mailing date of this notice within **which to supply the omission or correction in order to avoid abandonment.** EXTENSIONS OF THIS TIME PERIOD UNDER 37 CFR 1.136(a) ARE AVAILABLE.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Kunzer whose telephone number is (571) 272-5054. The examiner can normally be reached on Monday-Friday 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BK  
10/5/2006



**ANH D. MAI**  
**PRIMARY EXAMINER**